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Using geographical information systems to facilitate community based public health planning of diabetes intervention efforts

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Objective:

The survey was developed with three main objectives: To increase our understanding of health and social issues in Genesee County communities, to increase community awareness of the practical application of systematic information collection, and to increase community competence in survey design, conduct, and use.

Setting:

The Prevention Research Center of Michigan (PRC/MI), with its central mission to expand and share knowledge and thereby strengthen the capacity of the community in order to improve the public's health, used community based research principles to design and implement the Speak to Your Health! Community Survey. This survey was developed by the alliance of partners that comprise the PRC/MI in Genesee County, Michigan and focuses on community health and community concerns. This presentation will focus on the use of community survey data to facilitate diabetes intervention efforts.

Method or Intervention:

The community survey asked 1862 residents of Genesee County about their diet, physical activity, health status, and other health-related items and behaviors. The U.S. Department of Health and Human Services (DHHS) is currently piloting the Diabetes Detection Initiative in 10 communities throughout the United States, including Flint, Michigan. The Diabetes Task Force of the Greater Flint Health Coalition, a PRC/MI partner, has taken the lead in implementing this Initiative in Flint. Using community survey data along with DHHS criteria for diabetes risk, we calculated and geographically mapped diabetes risk scores and compared these to diabetes screening rates.

Result or Outcome:

The comparison showed that areas where diabetes risk rates were high had relatively low diabetes screening rates, revealing geographic areas where intervention efforts may be needed most. This information has been instrumental in raising the awareness of the issue with community groups and members. Those involved in community based diabetes intervention efforts have used this information in the development of activities to address diabetes, and especially the racial disparity in diabetes, in Genesee County.

Conclusion or Significance:

Through this survey, the PRC/MI has shown that quantitative data collection can be accomplished using the principles of community based research. The information obtained from analyses of community survey results will be used to plan and evaluate future research and intervention efforts aimed at improving the health of Genesee County residents, especially those experiencing a disproportionate share of adverse outcomes.